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PATENT

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Applicant(s)

de Groot, et al.

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# SUPPLEMENTAL SUBMISSION

Sir:

Attached herewith is Exhibit "1" which contains a Curriculum Vitae of Peter Wilhelmus Maria Hermans to supplement the Rule 132 Declaration of Dr. Hermans which was filed along with the Amendment under 37 C.F.R. §1.116 filed on January 11, 2005 in connection with the above-identified application.

If the Examiner has any questions regarding this Submission, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Edna I. Gergel, Ph.D. Registration No. 50,819 Agent for Applicants

HOFFMANN & BARON, LLP 6900 Jericho Turnpike Syosset, New York 11791 Tel. 516-822-3550 Fax. 516-822-3582 EIG:jlw 200070\_1

#### CURRICULUM VITAE

Name

Peter Wilhelmus Maria Hermans

Date of birth

May 6, 1964

Place of birth

Born, The Netherlands

Partner Children Hendrika Berends Sophie Jodith Hermans Anne Marie Hermans

Home address

Bachlaan 204

3261 WC Oud-Beijerland

The Netherlands T: 31-186-624038

Office address

Laboratory of Pediatrics / room Ee1500

Erasmus University Rotterdam

PO Box 1738 3000 DR Rotterdam The Netherlands T: 31-10-4088224 F: 31-10-4089486

E: hermans@kgk.fgg.eur.nl

Education

High School (VWO-B)

Bisschoppelijk College Sittard

The Netherlands 1976-1982

Biological Sciences (Biochemistry, Microbiology)

University of Nijmegen The Netherlands 1982-1988

### Professional training and academic appointments

1988-1992

Research fellow (PhD student)

Unit Molecular Microbiology (Dr. Jan D. A. van Embden), National Institute of

Public Health and Environmental Protection, Bilthoven, The Netherlands Research subject: Molecular epidemiology and diagnosis of tuberculosis

PhD thesis (February 1992): Repeated DNA sequences of Mycobacterium tuberculosis: molecular characterization and application in diagnosis and

epidemiology of tuberculosis

Prof. Dr. W. P. M. Hoekstra (promotor)

University of Utrecht The Netherlands

1992-1993

Senior scientist of the Armauer Hansen Research Institute (establishment of a tuberculosis research unit) and associate professor of the Addis Ababa

University, Addis Ababa, Ethiopia.

Research subject: Molecular epidemiology and immunology of tuberculosis

1993-present

University lecturer, senior scientist and head of the laboratory of Pediatrics (establishment of a molecular biology research unit), department of Pediatrics, Sophia Children's Hospital, Erasmus University Rotterdam, The Netherlands Research subject: Bacterial infectious diseases: molecular epidemiology,

molecular pathogenesis and host genetics

2001-present

Director Research and Development Bacterial Vaccines, Vaxinostics Ltd.,

Erasmus University Rotterdam, The Netherlands

## Teaching experience

1988-present 1990-present	Coaching of many students (over 20) in 6-12 month research projects Lecturer (one week lectures and practicals) of the yearly International Course on Biotechnology, Immunology and Vaccinology (World Health Organization), Geneva/Lausanne, Switzerland
1993-present	Lectures in Microbiology at various universities in The Netherlands
1993-present	Coaching of PhD students (see below)
1995	Lecturer (one week lectures and practicals) in the International Course on the Molecular Epidemiology of Bacterial Infections (BIOLAC program, United Nations University) Caracas, Venezuela
1997	Lecturer (one week lectures) in the International Course on the Molecular
1997	Epidemiology of Bacterial Infections (BIOLAC program, United Nations
	University) La Habana, Cuba
1998	Lecturer of the Boerhaave Course on Pneumococcal Infections and
	Pneumococcal Vaccination. Leiden, The Netherlands
1999 ·	Lecturer (one week lectures and practicals) of the International Refresher
	Course on Biotechnology, Immunology and Vaccinology (World Health
	Organization), Pune, India
1999	Organizer/lecturer (one week lectures and practicals) of the Biotechnology
-	Course on Bacterial Infectious Diseases (sponsored by the Dutch
0000	government), Hanoy, Vietnam Organizer/lecturer (one week lectures and practicals) of the Biotechnology
2000	Course on Bacterial Infectious Diseases (sponsored by the Hong Kong
	government), Hong Kong, China
2001 -	Lecturer of the Boerhaave Course on Infectious Diseases. Noordwijk, The
2001	Netherlands
2002	Organizer/lecturer (one week lectures and practicals) of the Biotechnology
	Course on Bacterial Infectious Diseases (sponsored by the Dutch
	government), Ho Chi Min City, Vietnam
2004	Lecturer of the Boerhaave Course on Infectious Diseases. Noordwijk, The
	Netherlands

## Management experience

1993-1998	Acting head of the laboratory of Pediatrics, department of Pediatrics, Sophia Children's Hospital, Erasmus University Rotterdam, The Netherlands
1993-present	Staff member of the department of Pediatrics, Sophia Children's Hospital, Erasmus University Rotterdam, The Netherlands (Chairman of Pediatrics: Prof.dr. H.A. Büller)
1993-present	Board member of the scientific council of the department of Pediatrics, Sophia Children's Hospital, Erasmus University Rotterdam, The Netherlands
1998-present	Head of the laboratory of Pediatrics, department of Pediatrics, Sophia Children's Hospital, Erasmus University Rotterdam, The Netherlands
2000-2001	Secretary of the Dutch Scientific Section on Microbial Pathogenesis
2001-2004	Chairman of the Dutch Scientific Section on Microbial Pathogenesis
2002-2004	Chairman of the scientific board of the Dutch Society for Medical Microbiology

## Other activities

1993-present	Reviewer for many international journals, e.g. all ASM Journals, the Journal of Infectious Diseases and Lancet.
1996	Member of the PhD committee of Dr. E.M. Bik (Thesis: Vaccine development and evolution of epidemic <i>Vibrio cholerae</i> strains), University of Utrecht, The
1996	Netherlands Member of the PhD committee of Dr. B. Wieles (Thesis: Thioredoxin and thioredoxin reductase of pathogenic mycobacteria), University of Leiden, The
	Netherlands

1997	Organizer of the Fourth European Meeting on the Molecular Biology of the
	Pneumococcus, Lunteren, The Netherlands Member of the European Commission COST/STD Initiative Expert Panel IX:
1997	Vaccines against Tuberculosis
	Organizer of the scientific program of the Dutch Scientific Section on Microbial
1999-2000	Delle approprie
2001-2002	Member of the scientific advisory board on universal vaccination against meningococcal serogroup C and pneumococcal disease of the Health Council of the Netherlands
0004	Marshar of the aditorial heard of Lancet Infectious Diseases
2001-present 2001	Member of the Jury of the Interprew-Baillet Health Prize 2001 (Fonds National
2001	L. Daabaacha Caiontifique Relatim)
2001	Member of the PhD committee of Dr. H.J. Wisselink (Thesis: Streptococcus
2001	suis infections in pigs)
2002	Member of the PhD committee of Dr. W.B. van Leeuwen (Thesis: Binary typing of Staphylococcus aureus)
2002	Member of the PhD committee of Dr. K. Lagrou (Thesis: Interaction between
2002	Member of the PhD committee of Dr. I.H.M. van Loo (Thesis: Vaccine-driven evolution of Bortedella pertussis hanges in population structure and strain
	fitness) Member of the PhD committee of Dr. A.W. Rijneveld (Thesis: Pneumonia: an
2003	· · · · · · · · · · · · · · · · · · ·
	Member of the PhD committee of Dr. S. van Selm (Thesis: Generation of capsule
2003	uting as the im-Otroptococcus pneumoniae)
2003	Member of the PhD committee of Dr. N. de Vries (Thesis: Gene regulation and
,2000	to a to adoptation in Helicohacter nylon)
2004	Member of the PhD committee of Dr. P.J.G. Zwijnenburg (Thesis: Local inflammatory response in bacterial meningitis). Vrije Universiteit Amsterdam.
	Promotores: Prof.dr. J.J. Roord, Prof.dr. T. van der Poll. Co-promotor: Dr. A.M.
<i>/</i> ·	F
2004	Member of the PhD committee of Dr. R.H. Veenhoven (Thesis: Pneumococcal
	vaccines for acute otitis media). Universiteit Utrecht. Promotores: Prof.drAM. Sanders, Prof.dr. W. Kuis. Co-promotores: Dr. A.G.M. Schilder, Dr.lr. G.T.
•	Rijkers.  Member of the PhD committee of Dr. J.L. Nouwen (Thesis: Determinants risks &
2004	dynamics of Staphylococcus aureus nasal carriage). Erasmus Universiteit Rotterdam. Promotores: Prof.dr. H.A. Verbrugh, Prof.dr. A. Hofman, Prof.dr.dr. A. van Belkum.
	A. VAII DEIKUIII.

#### PhD theses

Copromotor of Dr. K. Overweg; PhD thesis: Streptococcus pneumoniae, molecular epidemiological aspects and the identification of virulence factors (2000; Erasmus University Rotterdam, The Netherlands)

Copromotor of D. Bogaert; PhD thesis: Host-pathogen interaction during *Streptococcus pneumoniae* colonization and infection (2004; Erasmus University Rotterdam, The Netherlands)

### Memberships

Dutch Scientific Section on Microbial Pathogenesis
Dutch Society for Microbiology
Dutch Society for Medical Microbiology
Dutch Society for Infectious Diseases
American Society for Microbiology

## Grants obtained since 1994

Project Characterization of the role of adhesion in the pathogenesis of infections caused by Streptococcus pneumoniae

Sponsor:

Sophia Foundation for Medical Research (grant no. 177)

Period Budget 1994-1995 DFL 200,000.-

Project

Molecular epidemiology of infections by Streptococcus pneumoniae in children

Sponsor

Sophia Foundation for Medical Research (grant no. 194)

Period **Budget**  1995-1996 DFL 200,000.-

Project

Functional and genetic characterization of adhesins involved in the

pathogenesis of infections caused by Streptococcus pneumoniae

Sponsor

Sophia Foundation for Medical Research (grant no. 183)

Period **Budget**  1995-1998 DFL 300,000.-

Project

Non-invasive markers for the diagnosis of Asthma in children

Sponsor

Dutch Asthma Foundation (grant no. 94.14)

Period Budget

1995-1998 DFL 500,000.-

Project

Genetic characterization of drug-resistant Streptococcus pneumoniae in The

Sponsor

Sophia Foundation for Medical Research (grant no. 217)

Period **Budget**  1997-1998 DFL 200,000.-

Project

Clinical and molecular epidemiological studies of colonization and infection by Streptococcus pneumoniae in children and adults, and molecular

pathogenesis of pneumococcal infection studied in animal models

Sponsor

Sophia Foundation for Medical Research (grant no. 268) Dutch Science Foundation NWO-SGO (grant no. 005)

1999-2003 Period

Budget

DFL 500,000 - (SSWO) DFL 100,000.- (NWO-SGO)

Project

The protease maturation protein Pmp of Streptococcus pneumoniae: immune-

protective potentials and its role in the pathogenesis of infection

Sponsor

Sophia Foundation for Medical Research (grant no. 297)

Period Budget 2000-2001 DFL 250,000.-

Project

Identification of transcriptionally regulated virulence factors and regulatory

genes using a Streptococcus pneumoniae genome microarray

Sponsor Period

Sophia Foundation for Medical Research (grant no. 319)

**Budget** 

2001-2002 DFL 200,000.-

Project

Immune protective potential of the putative proteinase maturation protein (PpmA) of Streptococcus pneumoniae, fase 1

Dutch Science Foundation NWO-STIGON (Grant no. 014-80-114)

Sponsor Period Budget

2001-2002 DFL 300,000.-

Project

Identification of signal networks regulating the expression of virulence genes

in Streptococcus pneumoniae

Sponsor

Sophia Foundation for Medical Research (grant no. 356)

Period

2002-2005

Budget

€ 250,000.-

Genetic polymorphism within host and pathogen and its relation with infectious Project

diseases and autoimmunity

The Board of the University Hospital Rotterdam (Revolving Fund) Sponsor

2002-2004 Period € 372,500.-Budget

Development of eradication methods for Moraxella catarrhalis, a major cause Project

of otitis media in children

Sophia Foundation for Medical Research (grant no. 397) Sponsor

2003-2004 Period € 116,860.-Budget

Immune protective potential of the putative proteinase maturation protein Project

(PpmA) of Streptococcus pneumoniae, fase 2

Dutch Science Foundation ZON MW-STIGON (grant no. 014-81-114) Sponsor

2003-2004 Period € 222,000,-Budget

Development of specific monoclonal antibodies for the prevention of Project

nosocomial infections caused by coagulase-negative staphylococci (CNS) in

neonates

Erasmus MC, dept. of Pediatrics Sponsor

2003-2006 Period € 250,000,-**Budget** 

Development and application of genomic array footprinting in Streptococcus Project

pneumoniae, a high-throughput technology for genome-wide identification and

analysis of essential genes in bacteria

IOP Genomics (Senter) Sponsor

2004-2007 Period € 650,000,-Budget

Genomics of host-respiratory virus interactions. Towards novel intervention Project

strategies (VIRGO project)

BISK (Senter) Sponsor 2005-2008 Period

€ 440.000,- (postdoc for 4 years + laboratory equipment € 120.000,-) Budget

Genetic polymorphisms in host and pathogen associated with infection: Project

chronic hepatitis C (DITTO project)

European Commission, via Prof.dr. S.W. Schalm Sponsor

2004-2005 Period € 50.000,-Budget

#### **Patents**

The international patent application PCT/NL00/00569 entitled 'Pneumococcal Vaccines' has been filed August 14, 2000. A novel patent application, titled 'Method for selecting and producing vaccine components and vaccines based thereon' has been filed May 16, 2003. These patent applications comprise techniques used in the identification of surface-associated pneumococcal proteins, as well as pneumococcal surface proteins and their therapeutic potential.

# Publications in international peer-reviewed journals

Van Belkum, A., D. Bogaert, P.W.M. Hermans. Nasopharyngeal colonization with Staphylococcus aureus and Streptococcus pneumoniae in children is genotype independent. Submitted.

- Tonnaer E.L., G.T. Rijkers, J.F. Meis, C.H. Klaassen, D. Bogaert, P.W.M. Hermans, and J.H. Curfs. Genetic relationship between pneumococcal populations originating from nasopharynx, adenoid and tympanic cavity in children with otitis media. Submitted to JID
- Menges, T., P.W.M. Hermans, S. G. Little, T. Langefeld, M. Kostrzewa, J. Engel, J. Mühling, K. Weismüller, J. Stricker, E. Nieuwenhuis, M. Emonts, R. de Groot, and G. Hempelmann. Genetic polymorphisms as early predictors for the outcome of severely injured trauma patients. Submitted to Am. J. Respir. Crit. Care Med.
- Hays J.P., R. Gorkink, T. Hoogenboezem, G. Simons, K. Eadie, P.W.M. Hermans, C.M. Verduin, H. Verbrugh, and. A. van Belkum. Complement resistant and complement sensitive isolates within the *Moraxella catarrhalis* species actually represent two distinct subspecies. Submitted to App. Env. Microbiol.
- Bogaert, D., P.W.M. Hermans, H. Boelens, M. Sluijter, A. Luijendijk, H.C. Rümke, S. Koppen, A. van Belkum, R. de Groot, and H.A. Verbrugh. Epidemiology of nasopharyngeal carriage of *Neisseria meningitidis* in healthy Dutch children. Clin. Infect. Dis, accepted for publication.
- Bogaert, D., R.H. Veenhoven, R. Ramdin, I.H.T. Luijendijk, G.T. Rijkers, E.A.M. Sanders, R. de Groot, and P.W.M. Hermans. Pneumococcal conjugate vaccination does not induce persisting mucosal IgA response in children with recurrent acute otitis media. Vaccine, accepted for publication.
- Bogaert, D., R.H. Veenhoven, M. Sluijter, W.J.W. Wannet, G.T. Rijkers, T.J. Mitchell, S.C. Clarke, W.H.F. Goessens, A.G. Schilder, E.A.M. Sanders, R. de Groot, and P.W.M. Hermans. 2005. Molecular epidemiology of pneumococcal colonization in response to pneumococcal conjugate vaccination in children with recurrent acute otitis media. J. Clin. Microbiol. 43:74-83.
- Veenhoven, R.H., D. Bogaert, A.G.M. Schilder, G.T. Rijkers, C.S.P.M. Uiterwaal, H.H. Kiezebrink, M.J.P. van Kempen, I.J. Dhooge, J. Bruin, E.P.F. IJzerman, R. de Groot, W. Kuis, P.W.M. Hermans, conjugate and polysaccharide vaccination in children with a history of recurrent acute otitis media. Clin. Infect. Dis. 39:911-919.
- Bogaert, D., M. Sluijter, R. de Groot, and P.W.M. Hermans. 2004. Multiplex opsonophagocytosis assay (MOPA): a useful tool for the monitoring of the 7-valent pneumococcal conjugate vaccine. Vaccine 22:4014-4020.
- Adrian, P.V., D. Bogaert, M. Oprins, S. Rapola, M. Lahdenkari, T. Kilpi, R. de Groot, H. Käyhty, and P.W.M. Hermans. 2004. Development of antibodies against pneumococcal proteins α-Enolase, immunoglobulin A1 protease, streptococcal lipoprotein rotamase A, and putative proteinase maturation protein A in relation to pneumococcal carriage and Otitis Media. Vaccine 22:2737-2742.
- Kerr, A.R., P.V. Adrian, S.C. Estevão, R. de Groot, G. Alloing, J.P. Claverys, T.J. Mitchell, and P.W.M. Hermans. 2004. The Ami-AliA/AliB permease of *Streptococcus pneumoniae* is involved in nasopharyngeal colonization but not in invasive disease. Infect. Immun. 72:3902-3906.
- Bogaert, D., R.H. Veenhoven, M. Sluijter, E.A.M. Sanders, R. de Groot, and P.W.M. Hermans. 2004. Colony blot assay: a useful method to detect multiple pneumococcal serotypes within clinical specimens. FEMS Immunol. Med. Microbiol. 41:259-264.
- Bogaert, D., A. van Belkum, M. Sluijter, A. Luijendijk, R. de Groot, H.C. Rümke, H.A. Verbrugh, and P.W.M. Hermans. 2004. Colonisation by *Streptococcus pneumoniae* and *Staphylococcus aureus* in healthy children. Lancet 363:1871-1872.
- Bogaert, D., P.W.M. Hermans, P.V. Adrian, H.C. Rümke, and R. de Groot. 2004. Pneumococcal vaccines: an update on current strategies. Vaccine 22:2209-2220.
- Emonts, M., R. de Groot, and P.W.M. Hermans. 2004. Genetic susceptibility to *Neisseria meningitidis* infections. Neth. J. of Med. 62:(S)28-37.

Bogaert, D., P. van der Valk, R. Ramdin, M. Sluijter, E. Monninkhof, R. Hendrix, R. de Groot, and P.W.M. Hermans. 2004: Host-pathogen interaction during pneumococcal infection in patients with chronic obstructive pulmonary disease. Infect. Immun. 72:818-823.

Haralambous, E., M.L. Hibberd, P.W.M. Hermans, N. Ninis, S. Nadel, and M. Levin. 2003. Role of the functional plasminogen-activator-inhibitor-1 4G/5G promoter polymorphism in susceptibility, severity, and outcome of meningococcal disease in Caucasian children. Crit. Care Med. 31:2788-2793.

Bogaert, D., P.W.M. Hermans, I.N. Grivea, G.S. Katopodis, T.J. Mitchell, M. Sluijter, R. de Groot, N.G. Beratis, and G.A. Syrogiannopoulos. 2003. Molecular epidemiology of penicillin-susceptible non-ß-lactam-resistant *Streptococcus pneumoniae* isolates from Greek children. J. Clin. Microbiol.; *41:* 5633-5639.

Sanders, E.A.M., R. Veenhoven, D. Bogaert, A. Schilder, and P.W.M. Hermans. 2003. Effect of conjugate pneumococcal vaccine on recurrent acute otitis media. Lancet; 362:1081.

Veenhoven, R., D. Bogaert, C. Uiterwaal, C. Brouwer, H. Kiezebrink, J. Bruin, E. IJzerman, P.W.M. Hermans, R. de Groot, B. Zegers, W. Kuis, G. Rijkers, A. Schilder, and E.A.M. Sanders. 2003. Effect of conjugate pneumococcal vaccine followed by polysaccharide pneumococcal vaccine on recurrent acute otitis media. Lancet; 361:2189-2195.

Bogaert, D., N.T. Ha, M. Sluijter, N. Lemmens, R. de Groot, and P.W.M. Hermans. 2002. Molecular epidemiology of pneumococcal carriage among children with upper respiratory tract infections in Hanoi, Vietnam. J. Clin. Microbiol. 40:3903-3908.

Overweg, K., D. Bogaert, M. Sluijter, R. de Groot, and P.W.M. Hermans. 2001. Molecular characteristics of penicillin-binding protein genes of penicillin-nonsusceptible *Streptococcus pneumoniae* isolated in The Netherlands. Microb. Drug. Resist. 7:323-334.

Bogaert, D., M.N. Engelen, A.J.M. Timmers-Reker, K.P. Elzenaar, P.G.H. Peerbooms, R.A. Coutinho, R. de Groot, and P.W.M. Hermans. 2001. Pneumococcal carriage in children in The Netherlands: a molecular epidemiological study. J. Clin. Microbiol. 39:3316-3320.

Van Tilburg, P.M.B., D. Bogaert, M. Sluijter, A.R. Jansz, R. de Groot, and P.W.M. Hermans. 2001. Emergence of rifampicin-resistant *Streptococcus pneumoniae* as a result of antimicrobial therapy for penicillin-resistant strains. Clin. Infect. Dis. 33:e93-e96.

Menges, T., P.W.M. Hermans, S.G. Little, T. Langefeld, O. Böning, J. Engel, M. Sluijter, R. de Groot, and G. Hempelmann. 2001. Plasminogen-activator-inhibitor-1 4G/5G promoter polymorphism and prognosis of severely injured patients. Lancet 357:1096-1097.

Syrogiannopoulos, G.A., D. Bogaert, I.N. Grivea, N.G. Beratis, R. de Groot, and P.W.M. Hermans. 2001. Molecular epidemiology of penicillin-susceptible, multidrug-resistant serotype 6B pneumococci isolated from children in Greece. J. Clin. Microbiol. 39:581-585.

Overweg, K., D. Bogaert, M. Sluijter, J.L. Yother, J. Dankert, R. de Groot, and P.W.M. Hermans. 2000. Genetic relatedness within serotypes of penicillin-susceptible *Streptococcus pneumoniae* isolates. J. Clin. Microbiol. 38:4548-4553.

Bogaert, D., G.A., Syrogiannopoulos, I.N. Grivea, R. de Groot, N.G. Beratis, and P.W.M. Hermans. 2000. Molecular epidemiology of penicillin-nonsusceptible *Streptococcus pneumoniae* in Greece. J. Clin. Microbiol. 38:4361-4366.

Goessens, W.H.F., N. Lemmens-den Toom, J. Hageman, P.W.M. Hermans, M. Sluijter, R. de Groot, and H.A. Verbrugh. 2000. Evaluation of the VITEC 2 system for susceptibility testing of *Streptococcus pneumoniae* isolates. Eur. J. Clin. Microbiol. Inf. Dis. 19:618-622.

Overweg, K., M. Sluijter, M. Srodzinski, R. de Groot, and P.W.M. Hermans. 2000. Immune-protective antibodies against capsular polysaccharides do not affect natural competence of *Streptococcus* 

pneumoniae: implications for current conjugate vaccination strategies? FEMS Immunol. Med. Microbiol. 29:183-185.

Overweg, K., C.D. Pericone, G.G.C. Verhoef, J.N. Weiser, H.D. Meiring, A.P.J.M. de Jong, R. de Groot, and P.W.M. Hermans. 2000. Differential protein expression in phenotypic variants of Streptococcus pneumoniae. Infect. Immun. 68:4604-4610.

Overweg, K., A. Kerr, M. Sluijter, M.H. Jackson, T.J. Mitchell, A.P.J.M. de Jong, R. de Groot, and P.W.M. Hermans. 2000. The putative proteinase maturation protein A of *Streptococcus pneumoniae* is a conserved surface protein with potential to elicit protective immune responses. Infect. Immun. 68:4180-4188.

Pericone, C.D., K. Overweg, P.W.M. Hermans, and J.N. Weiser. 2000. Inhibitory and bactericidal effects of hydrogen peroxide production by *Streptococcus pneumoniae* on other inhabitants of the upper respiratory tract. Infect. Immun. 68:3990-3997.

Hermans, P.W.M., T. Hoogenboezem, and R. de Groot. 2000. Adaptation and survival of *Mycobacterium tuberculosis* in the host. J. Clin. Virol. 16:84-85.

De Galan, B.E., P.M.B. van Tilburg, M. Sluijter, S.J.M. Mol, R. de Groot, P.W.M. Hermans, and A.R. Jansz. 1999. Hospital-related outbreak of infection with multidrug-resistant *Streptococcus pneumoniae* in The Netherlands. J. Hosp. Infect. *42*:185-192.

Dejsirilert, S., K. Overweg, M. Sluijter, L. Saengsuk, M. Gratten, T. Ezaki, and P.W.M. Hermans. 1999. Nasopharyngeal carriage of penicillin-resistant *Streptococcus pneumoniae* among children with acute respiratory tract infections in Thailand: a molecular epidemiological survey. J. Clin. Microbiol. 37:1832-1838.

Overweg, K., R. de Groot, and P.W.M. Hermans. 1999. Streptococcus pneumoniae flow-cytometric phagocytosis assay (Letter). Clin. Diagn. Lab. Immunol. 6:444.

Overweg, K., P.W.M. Hermans, K. Trzcinski, M. Sluijter, R. de Groot, and W. Hryniewicz. 1999. Multidrug-resistant *Streptococcus pneumoniae* in Poland: identification of emerging clones. J. Clin. Microbiol. 37:1739-1745.

Hermans P.W.M., M.L. Hibberd, R. Booy, O. Daramola, J.A. Hazelzet, R. de Groot, M. Levin, and the Meningococcal Research Group. 1999. *4G/5G* promoter polymorphism in the plasminogen-activator-inhibitor-1 gene and outcome of meningococcal disease. Lancet *354*:556-561.

Kremer, K. D. van Soolingen, R. Frothingham, W.H. Haas, P.W.M. Hermans, C. Martin, P. Palittapongarnpim, B.B. Plikaytis, L.W. Riley, M.A. Yakrus, J.M. Musser, and J.D.A. van Embden. 1999. Comparison of methods based on different molecular epidemiologic markers for typing of *Mycobacterium tuberculosis* complex strains: interlaboratory study of discriminatory power and reproducibility. J. Clin. Microbiol. 37:2607-2618.

Jöbsis, Q., H.C. Raatgeep, S.L. Schellekens, W.C.J. Hop, P.W.M. Hermans, and J.C. de Jongste. 1998. Hydrogen peroxide in exhaled air of healthy children: reference values. Eur. Respir. J. 12:483-485.

Sluijter M., H. Faden, R. de Groot, N. Lemmens, W.H.F. Goessens, A. van Belkum, and P.W.M. Hermans. 1998. Molecular characterization of pneumococcal nasopharynx isolates collected from children during their first two years of life. J. Clin. Microbiol. 36:2248-2253.

Van Soolingen, D., T. Hoogenboezem, P.E.W. de Haas, P.W.M. Hermans, M.A. Koedam, K.S. Teppema, P.J. Brennan, G.S. Besra, F. Portaels, J. Top, L.M. Schouls, and J.D.A. van Embden. 1997. A novel pathogenic sub-species of *Mycobacterium tuberculosis*: characterization of an isolate from Africa. Syst. Bacteriol. 47:1236-1245.

Hermans, P.W.M., M. Sluijter, S. Dejsirilert, N. Lemmens, K. Elzenaar, A. van Veen, W.H.F. Goessens, and R. de Groot. 1997. Molecular epidemiology of drug-resistant pneumococci: towards an international approach. Microb. Drug Resist. 3:243-251.

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